CHAPTHER I

INTRODUCTION

A. Background

Concrete is a need for primary in a building skyscrapers, considering the greenhouse effect that can lead to global warming and environmentally friendly and modern day this is a solution construction concrete environmentally friendly, there was some sort of concrete as time goes much important to be find for a precedent in the future.

Many discoveries of concrete start in 1824 a scientist who discovered portland cement named Aspdin , then by J.L Lambot in 1850 promoted the basic construction (joint composite two ingredients different constructions who worked for same resist against), in 1861 F .Coignet to pilot the use ofreinforcement on construction roof,pipes and dome, in 1887 GustavWayss&Koenen andHennebique introduce spoke as retaining sliding style and use beams “T” to reduce the heavy own, and still much research using the concrete other.

Characteristic of concrete have destroyed press high voltage pull and destroyed low, temporary use of ash fly is as fillers cavity empty to be more closely bond between material and fastener cement material in portland.

From the above information this study attempts to knows the press concrete high quality from 1 day with the added *fly ash*, and how influence to *fly ash* concrete compared with concrete normal (0 % *fly ash*) .

B. Purpose

The purpose of this research is as follows:

1 .Will recognize influence on the *fly ash* strong press concrete high quality with a one day.

2 .Will recognize the composition optimal concrete high quality using *fly ash*.

C. Identification of the Problem

Research on concrete high quality age 1 today taken formulation issue as following:

1) how powerful press concrete high quality age 1 day with a mixture of 0 % variations , 7 % , 9 % , 11 % , 13 % , and added 15 % material *fly ash* ?

2) upon variations how there highest strong press ?

D. Limitation of Problems

To anticipate the problem is out, hence given the issue as following:

1. Cement used is cementGresikportland brands.
2. The coarse aggregate derived from KulonProgo,Yogyakarta.
3. Thefine aggregate derived from Muntilan, Sleman Yogyakarta.
4. *Fly ash*derived from PLTUJepara(PT JayaReadyMix).
5. Water used from the lab civil engineering UMS.
6. The quality of concrete planned fc = 20 MPa method of planning a mixture of using SNI
   (thebritist design method).
7. Testing concrete fresh done with slump test.
8. *Fly ash* as admixture to replace 0 %, 7 %, 9 %, 11 %, 13 %, and 15 % of a heavy cement.
9. Fas of 0,3.
10. Strong press with the test cylindrical 15 cm in diameter and high 30 cm and testing concrete at the age of 1 day.

E. Benefits Research

This research is expected to contribute thought to making planning concrete economic and high quality of added in terms of (*fly ash*).

F. Authenticity Research

1. Previous Studies

To research on the use of previous *fly ash* as an ingredient of concrete added high quality ever been to minutely by AdhySetyawan(2014), by using dust as a substitute for aggregat smooth, obtained strong press at the age of 28 days upon variations 12.5 %*fly ash* of the weight of a cement of 43,03 MPa and has increased 43,38 % of concrete normal .

2. Research Proposed

Research submitted by title **"Experiment Of Early Concrete Age With*Fly Ash*Using High Strength Concrete Design"** this discuss about the use of variation *fly ash* 0 %, 7 % , 9 % , 11%, 13%and 15%of the weight of a cement .